His Val Lys Ser Ala Ala Glu Arg Asn Lys His Val Asn Val Phe Leu 65 70 75 80

Lys His Pro His Ser Ala Lys Ile Pro Phe Ile Ile Gly Ile Ala Gly 85 90 95

Ser Val Ala Val Gly Lys Ser Thr Thr Ala Arg Ile Leu Gln Lys Leu 100 105 110

Leu Ser Arg Leu Pro Asp Arg Pro Lys Val Ser Leu Ile Thr Thr Asp 115 120 125

Gly Phe Leu Phe Pro Thr Ala Glu Leu Lys Lys Lys Asn Met Met Ser 130 135 140

Arg Lys Gly Phe Pro Glu Ser Tyr Asp Val Lys Ala Leu Leu Glu Phe 145 150 150

Leu Asn Asp Leu Lys Ser Gly Lys Asp Ser Val Lys Ala Pro Val Tyr 165 170 175

Ser His Leu Thr Tyr Asp Arg Glu Glu Gly Val Phe Glu Val Val Glu 180 185 190

Gln Ala Asp Ile Val Ile Ile Glu Gly Ile Asn Val Leu Gln Ser Pro 195 200 205

Thr Leu Glu Asp Asp Arg Glu Asn Pro Arg Ile Phe Val Ser Asp Phe 210 215 220

Phe Asp Phe Ser Ile Tyr Val Asp Ala Glu Glu Ser Arg Ile Phe Thr 225 230 235 240

Trp Tyr Leu Glu Arg Phe Arg Leu Leu Arg Glu Thr Ala Phe Gln Asn 245 250 255

Pro Asp Ser Tyr Phe His Lys Phe Lys Asp Leu Ser Asp Gln Glu Ala 260 265 270

Asp Glu Met Ala Ala Ser Ile Trp Glu Ser Val Asn Arg Pro Asn Leu 275 280 285

Tyr Glu Asn Ile Leu Pro Thr Lys Phe Arg Ser Asp Leu Ile Leu Arg 290 295 300

Lys Gly Asp Gly His Lys Val Glu Glu Val Leu Val Arg Arg Val 305 310 315

<210> 4

<211> 312

<212> PRT

<213> Mycobacterium leprae

<400> 4

Met Pro Arg Leu Ser Glu Pro Ser Pro Tyr Val Glu Phe Asp Arg Lys

1 5 10 15

Gln Trp Arg Ala Leu Arg Met Ser Thr Pro Leu Ala Leu Thr Glu Glu

Glu Leu Ile Gly Leu Arg Gly Leu Gly Glu Gl<br/>n Ile Asp Leu Leu Glu 35  $\phantom{a}40\phantom{a}45$ 

Val Glu Glu Val Tyr Leu Pro Leu Ala Arg Leu Ile His Leu Gl<br/>n Val 50  $\,$  55  $\,$  60

Ala Ala Arg Gln Arg Leu Phe Ala Ala Thr Ala Glu Phe Leu Gly Glu 65 70 75 80

Pro Gln Gln Asn Pro Gly Arg Pro Val Pro Phe Ile Ile Gly Val Ala 85 90 95

Gly Ser Val Ala Val Gly Lys Ser Thr Thr Ala Arg Val Leu Gln Ala 100 \$105\$

Leu Leu Ala Arg Trp Asp His His Thr Arg Val Asp Leu Val Thr Thr  $115 \\ 120 \\ 125$ 

Asp Gly Phe Leu Tyr Pro Asn Ala Glu Leu Gly Arg Arg Asn Leu Met 130 135 140

His Arg Lys Gly Phe Pro Glu Ser Tyr Asn Arg Arg Ala Leu Met Arg 145 150 155 160

Phe Val Thr Ser Val Lys Ser Gly Ala Asp Tyr Ala Cys Ala Pro Val 165 170 175

Tyr Ser His Leu Arg Tyr Asp Thr Ile Pro Gly Ala Lys His Val Val 180 185 190

Arg His Pro Asp Ile Leu Ile Leu Glu Gly Leu Asn Val Leu Gln Thr 195 200 205

Gly Pro Thr Leu Met Val Ser Asp Leu Phe Asp Phe Ser Leu Tyr Val 210 215 220

Asp Ala Arg Ile Gln Asp Ile Glu Gln Trp Tyr Val Ser Arg Phe Leu 225 230 235 240

Ala Met Arg Gly Thr Ala Phe Ala Asp Pro Glu Ser His Phe His His 245 250 255

Tyr Ser Ala Leu Thr Asp Ser Lys Ala Ile Ile Ala Ala Arg Glu Ile 260 265 270

Trp Arg Ser Ile Asn Arg Pro Asn Leu Val Glu Asn Ile Leu Pro Thr 275 280 285

Arg Pro Arg Ala Thr Leu Val Leu Arg Lys Asp Ala Asp His Ser Ile 290 295 300

Asn Arg Leu Arg Leu Arg Lys Leu 305 310

<210> 5

<211> 312

<212> PRT

<213> Mycobacterium tuberculosis

<400> 5

Met Ser Arg Leu Ser Glu Pro Ser Pro Tyr Val Glu Phe Asp Arg Arg Gln Trp Arg Ala Leu Arg Met Ser Thr Pro Leu Ala Leu Thr Glu Glu Glu Leu Val Gly Leu Arg Gly Leu Gly Glu Gln Ile Asp Leu Leu Glu Val Glu Glu Val Tyr Leu Pro Leu Ala Arg Leu Ile His Leu Gln Val Ala Ala Arg Gln Arg Leu Phe Ala Ala Thr Ala Glu Phe Leu Gly Glu Pro Gln Gln Asn Pro Asp Arg Pro Val Pro Phe Ile Ile Gly Val Ala Gly Ser Val Ala Val Gly Lys Ser Thr Thr Ala Arg Val Leu Gln Ala 105 Leu Leu Ala Arg Trp Asp His His Pro Arg Val Asp Leu Val Thr Thr 115 120 Asp Gly Phe Leu Tyr Pro Asn Ala Glu Leu Gln Arg Arg Asn Leu Met 135 His Arg Lys Gly Phe Pro Glu Ser Tyr Asn Arg Arg Ala Leu Met Arg 150 Phe Val Thr Ser Val Lys Ser Gly Ser Asp Tyr Ala Cys Ala Pro Val Tyr Ser His Leu His Tyr Asp Ile Ile Pro Gly Ala Glu Gln Val Val Arg His Pro Asp Ile Leu Ile Leu Glu Gly Leu Asn Val Leu Gln Thr Gly Pro Thr Leu Met Val Ser Asp Leu Phe Asp Phe Ser Leu Tyr Val Asp Ala Arg Ile Glu Asp Ile Glu Gln Trp Tyr Val Ser Arg Phe Leu Ala Met Arg Thr Thr Ala Phe Ala Asp Pro Glu Ser His Phe His His Tyr Ala Ala Phe Ser Asp Ser Gln Ala Val Val Ala Ala Arg Glu Ile 265 Trp Arg Thr Ile Asn Arg Pro Asn Leu Val Glu Asn Ile Leu Pro Thr 280 Arg Pro Arg Ala Thr Leu Val Leu Arg Lys Asp Ala Asp His Ser Ile

Asn Arg Leu Arg Leu Arg Lys Leu 305 310

295

300